



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,491	09/26/2003	Jeffrey W. Drawe	D/A3447	8255

25453 7590 11/19/2004

PATENT DOCUMENTATION CENTER
XEROX CORPORATION
100 CLINTON AVE., SOUTH, XEROX SQUARE, 20TH FLOOR
ROCHESTER, NY 14644

EXAMINER

CHEN, SOPHIA S

ART UNIT	PAPER NUMBER
----------	--------------

2852

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,491

Applicant(s)

DRAWE ET AL.

Examiner

Sophia S. Chen

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 9, 12, 20, 21 and 26 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 10, 11, 13-19, 22-25 and 27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/18/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 94 (Figure 6). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
- a. Page 6, paragraph [0018], line 3, "Figure 2" should be "Figure 3".
 - b. Page 6, paragraph [0018], line 3, "Figure 2" should be "Figure 3".
 - c. Page 8, paragraph [0021], line 2, "Figure 2" should be "Figure 3".
- Appropriate correction is required.

Claim Objections

3. Claims 4, 5, 13, 22, and 23 are objected to because of the following informalities:

- a. Claim 4, line 1, "mechanism" should be "device" to be consistent with the terminology used in claim 1, line 9.
- b. Claim 5, line 1, "mechanism" should be "device" to be consistent with the terminology used in claim 1, line 9.
- c. Claim 13, line 2, "the wiper mechanism" (first occurrence) should be "a wiper mechanism" because it is the first time to use this terminology.
- d. Claim 22, line 2, "the duty cycle" should be "a duty cycle" because it is the first time to use this terminology.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 3, 8, 9, 12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Owens, Jr. et al. (US Pat. No. 5,442,422)

The patent discloses a cleaning system for removing residual toner from an imaging surface, comprising: a primary cleaner (a brush) 50 or (a blade) 30 for removing the predominant amount of residual toner and debris, such primary cleaner 50 or 30 having an operative position (contacting a photoreceptor 10; column 3, lines 14-24 and 44-48; Figures 4 and 7); a blade holder (no reference numeral assigned; Figure 4, the plate between reference numerals 82 and 91); an agglomeration cleaning blade 70

Art Unit: 2852

mounted in the blade holder at a position downstream from the primary cleaner 50 or 30, the cleaning blade 70 having a cleaning edge (column 4, lines 19-22 and Figure 6); a forcing device for moving the blade 70 between a first and a second position wherein the first and second position are selected from the group consisting of an engaged position and a retracted position (column 4, lines 12-15 and 52-68); wherein, when the blade 70 is moved into the engaged position, the cleaning edge is supported at a low angle of attack in engagement with the imaging surface 10 at a relatively low load, for shearing release of agglomerations from the imaging surface 10 and wherein the cleaning blade 70 is movable to the retracted position during periods in which the primary cleaner 50 or 30 is in its operative position (Figures 7 and 8).

The patent further discloses a wiper mechanism (a wiper blade 30) wherein, when the blade 70 is moved to the retracted position, the wiper mechanism removes sheared agglomerations from the cleaning blade 70 (the blade 70 contacting a blade 30; Figures 7 and 8); a catch tray (housing) 90 situated to catch agglomerations sheared by the cleaning edge (Figures 7 and 8); the blade holder is pivotally mounted (via pivot 91) and wherein the forcing device causes pivotal motion between the engaged and the retracted positions (Figures 7 and 8); and the imaging surface 10 is a charge retentive surface (photoreceptor) and wherein the cleaning system comprising a cleaning system within an electrostatographic imaging system (printer machine; column 5, lines 64-65).

6. Claims 21 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Owens, Jr. et al.

The patent discloses a process for cleaning agglomerations from an imaging surface 10, comprising: removing the predominate amount of residual toner and debris from the imaging surface 10 by a primary cleaner mechanism (a brush) 50 (column 3, lines 14-16); engaging a cleaning edge of a cleaning blade 30 with the imaging surface 10 at a low angle of attack at a relatively low load for shearing release of agglomerations from the imaging surface 10 (column 3, lines 16-20 and Figure 4); retracting the cleaning blade 30 from the position in which it is engaged with the imaging surface 10 (Figure 7); cleaning the retracting cleaning blade 30 by engaging the cleaning edge with a wiper mechanism (column 5, lines 41-47 and Figures 6 and 7); and wherein engaging is avoided during non-imaging periods (when the machine has been shut off; column 4, lines 49-52).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owens, Jr. et al. in view of Pozniakas et al. (US Pat. No. 5,493,383; cited in Form PTO-1449) and Thayer et al. (US Pat. No. 5,655,203)

Owens, Jr, et al., as discussed above, further discloses the forcing mechanism is a handle or a similar mechanism (column 4, lines 52-58), and any number of mechanical devices may be used to cam and retract the blade 70 (column 4, lines 64-68).

Pozniakas et al. discloses a cleaning system 70 comprising a cleaner 200 for removing residual toner from an imaging surface 10; a forcing device for moving the cleaner 200 between a first and a second position (Figures 4A through 4C); and the forcing device is a motor or a solenoid (column 6, lines 58-61).

Thayer et al. discloses a cleaning system 150 comprising a cleaner 20 for removing residual toner from an imaging surface 10; a forcing device for moving the cleaner 200 between a first and a second position (Figures 6 and 7); and the forcing device is a motor or a solenoid (column 4, lines 37-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply either solenoid or motor as taught by both Pozniakas et al. and Thayer et al. to the forcing device of Owens, Jr. et al. because of the same functionality for moving the cleaner.

Allowable Subject Matter

10. Claims 6, 7, 10, 11, 13-19, 22-25, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

LeRoy et al. (US Pat. No. 5,126,798) discloses an image forming apparatus comprising a cleaning system including a cleaning brush, a cleaning blade, and a catch tray.

Fina et al. (US Pat. Pub. No. US 2004/0022554 A1) discloses an image forming apparatus comprising a cleaning system including a primary cleaner; an agglomeration cleaning blade; and a forcing device.

Pozniakas et al. (JP 05-142971 A) discloses an image forming apparatus comprising a cleaning system including a primary cleaner; an agglomeration cleaning blade; and a forcing device.

Kai et al. (JP 05-323835 A) discloses an image forming apparatus comprising a cleaning system including a primary cleaner; an agglomeration cleaning blade; a forcing device; wherein, the blade is movable to a retracted position during periods in which the primary cleaners is not (emphasis added) in its operative position.

Ito (JP 06-230704 A) discloses an image forming apparatus comprising a cleaning system including a cleaning brush and a cleaning blade.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (703) 308-7617. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
November 17, 2004